HDAC4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	HDAC4, Polyclonal Antibody
Full Product Name	HDAC4 (Ab-632) Antibody
Product Gene Name	anti-HDAC4 antibody
Product Synonym Names	HD4; Histone deacetylase 4; KIAA0288
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Specificity	The antibody detects endogenous levels of total HDAC4 protein.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	119,040 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (239969864..240322643, complement). Location: 2q37.3
OMIM	600430
3D Structure	ModBase 3D Structure for P56524
Immunogen	Synthesized non-phosphopeptide derived from human HDAC4 around the phosphorylation site of serine 632.
Product Categories/Family for anti-HDAC4 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-HDAC4 antibody	Western Blot (WB)
Application Notes for anti-HDAC4 antibody	WB: 1:500~1:3000
Related Product Information for anti-HDAC4 antibody	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Involved in muscle maturation via its interaction with the myocyte enhancer factors such as MEF2A, MEF2C and MEF2D.
Product References and Citations for anti-HDAC4 antibody	Wang AH, et al. (2000) Mol Cell Biol. 20 (18): 6904-6912.Grozinger CM, et al. (2000) Proc Natl Acad Sci U S A. 97 (14): 7835-7840
Other Notes	Small volumes of anti-HDAC4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for HDAC4 purchase	MBS8586792 is an antibody targeting HDAC4. Also known as HDAC4 (Ab-632) Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HDAC4. It may not necessarily be applicable to this product.

NCBI GI #	153085395
NCBI GeneID	9759
NCBI Accession #	NP_006028.2
UniProt Primary Accession #	P56524
UniProt Secondary Accession #	Q9UND6
UniProt Related Accession #	P56524
GenBank Nucleotide #	NM_006037.3
NCBI Official Full Name	histone deacetylase 4
NCBI Official Synonym Full Names	histone deacetylase 4
NCBI Official Symbol	HDAC4
NCBI Official Synonym Symbols	HD4; AHO3; BDMR; HDACA; HA6116; HDAC-4; HDAC-A
UniProt Protein Name	Histone deacetylase 4
UniProt Gene Name	HDAC4
UniProt Synonym Gene Names	KIAA0288; HD4
UniProt Entry Name	HDAC4_HUMAN
NCBI Protein Information	histone deacetylase 4; histone deacetylase A
NCBI Summary for HDAC4	Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to class II of the histone deacetylase/acuc/apha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. This protein does not bind DNA directly, but through transcription factors MEF2C and MEF2D. It seems to interact in a multiprotein complex with RbAp48 and HDAC3. [provided by RefSeq, Jul 2008]

UniProt Comments for HDAC4	HDAC4: a transcriptional regulator of the histone deacetylase family, subfamily 2. Deacetylates lysine residues on the N-terminal part of the core histones H2A, H2B, H3 AND H4. Plays an important role in transcriptional regulation, cell cycle progression and developmental events. Does not bind DNA directly, but through transcription factors MEF2C and MEF2D. It seems to interact in a multiprotein complex with RbAp48 and HDAC3. Protein type: Nuclear receptor co-regulator; Hydrolase; Deacetylase; EC 3.5.1.98 Chromosomal Location of Human Ortholog: 2q37.3 Cellular Component: nucleoplasm; transcriptional repressor complex; cytoplasm; histone deacetylase complex; actomyosin; neuromuscular junction; Z disc; cytosol; nucleus; A band Molecular Function: potassium ion binding; NAD-dependent histone deacetylase activity (H3-K9 specific); protein binding; transcription activator binding; NAD-dependent histone deacetylase activity (H3-K14 specific); zinc ion binding; sequence-specific DNA binding; histone deacetylase binding; protein deacetylase activity; NAD-dependent histone deacetylase activity (H4-K16 specific); histone deacetylase activity; protein kinase binding; transcription factor binding; transcription corepressor activity Biological Process: cardiac muscle hypertrophy; positive regulation of transcription, DNA-dependent; negative regulation of transcription from RNA polymerase II promoter; response to denervation involved in regulation of muscle adaptation; regulation of gene expression, epigenetic; negative regulation of cell proliferation; positive regulation of cell proliferation; negative regulation of osteoblast differentiation; negative regulation of glycolysis; inflammatory response; skeletal development; response to drug; nervous system development; regulation of skeletal muscle fiber development; B cell activation; transcription, DNA-dependent; negative regulation of transcription factor activity; histone deacetylation; osteoblast development; chromatin remodeling; positive regulation of protein sumoylation; regulation of protein binding; B cell differentiation; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription factor activity; negative regulation of transcription, DNA-dependent
Research Articles on HDAC4	**1.** Nuclear calcium signaling is a regulator of nuclear export of HDAC4 and HDAC5.
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